

possible to reduce amounts paid in sickness and death benefits, amounts paid in workmen's compensation, and the cost of employees' days lost. It may be assumed, although no reliable estimates are available, that the cost to the employer, when experienced employees are incapacitated by sickness, is at least one and one-half times the daily wage. Undoubtedly some of the factors covered in the study of industrial accident costs also apply to sickness, as for example, (1) cost of lost time of sick employee; (2) cost of time of other employees required to do the work of the absentee; (3) cost of time lost by foremen, supervisors, or other executives to select, train, or break in new employees; (4) cost of idle machines; (5) cost due to interference with production; (6) cost under welfare and benefit systems; (7) cost of continuing the wages of the sick employee in full after his return, although his services may be only worth about half their normal value on account of his condition. Such are the hidden costs comparable to those summarized by authorities on industrial accidents.

Let us not forget also the humanitarian aspect. War will reap its harvest while manpower at home will strive to shorten its duration.

219 South Central Avenue.

SAN DIEGO MANAGEMENT LOOKS AT INDUSTRIAL HEALTH*

W. FRANK PERSONS
San Diego

THE objective of management in any industrial enterprise is efficient production. In achieving this end, management must take into consideration all factors and conditions, and must maintain them in actual balance.

Within industry, three of the principal factors conditioning efficient production are: (1) plant and facilities, (2) equipment and machinery, and (3) manpower.

Some of the factors determining the efficiency of manpower in the operation of an industrial plant are: careful selection of working personnel; adequate foremanship; sound organization of working force; maintenance of health and morale of personnel; and satisfactory labor relations.

No one of these factors is solely responsible for the successful utilization of manpower in industry. Even the thesis that health is the primary and most essential factor is too simple to be true. This may be said without disparaging the great importance of industrial health. In seeking the most effective employment of manpower in industry, it must be realized that all of the factors act and react upon each other, that each supports and supplements all of the others.

Absenteeism is one of the important factors limiting efficient production. Statistics on the number of man hours lost in industry through absenteeism are appalling. Thus, it has been reported that in a plant employing more than 40,000 workers, there are as many as 2,000 man days a week lost through absenteeism. A very substantial amount of absenteeism could be prevented by more adequate industrial health programs. Provision of proper opportunity for shopping outside of working hours would lessen absenteeism among women charged also with domestic responsibilities.

Enlightened management does regard industrial health as one of the major essentials in the productive enterprise. Accordingly good management is alert not only to the installation and maintenance of adequate plant facilities and machinery, but is equally alert to the adequacy of its program for industrial health, both at the time of induction and throughout the period of employment of its workers.

Physical examination of employees at the time of selection is the general practice of large employers. According to the results of physical examinations employees may be placed in positions for which they are suited. The reluctance on the part of prospective employees to undergo physical examination which has existed in the past is being overcome rapidly. Most applicants for employment now realize that physical examinations are for the protection of the individual and of the group.

Periodic physical examination of employees is not as generally practiced as is physical examination at the time of induction. As techniques for more efficient production are developed, however, it is possible that periodic health examinations will be as fully practiced.

Preventive measures are of more importance than corrective measures. Here again care should be used in interpreting statistics. Thus, a large number of visits to first-aid stations may mean, not a high frequency of accidents due to lack of safety measures, but that employees have been encouraged by management to visit the first-aid station upon receiving very slight injuries, or upon the occurrence of slight ailments. Lack of visits to first-aid stations may mean that employees are careless with respect to minor injuries, and are inclined to "bluff it through," or even are encouraged in that practice by foremen.

One of the major opportunities of management is health education. In many industrial concerns, management has become quite aware of the importance of continuous education with respect to health, not only on the job but also as to personal hygiene and health in the home. As a result of the heavy demands of war production, management has concerned itself with the problems of housing, transportation, nutrition, and fatigue, because it realizes that all of these have their direct effect on the efficiency of the employee.

Management looks at industrial health as one of the most essential factors in the production

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Author is Director of Industrial Relations, Consolidated Aircraft Corporation, San Diego, California.

program. The lessons to be learned while war production is essential to our very existence as a Nation will not be forgotten; when we enter the period of constructive peace, we shall find that management will attach still greater importance to the maintenance and development of industrial health programs.

Consolidated Aircraft Corporation.

PHYSICIANS' LEGAL RESPONSIBILITIES IN INDUSTRIAL MEDICINE*

C. H. FRY, ESQ.

San Francisco

THE Roseberry Employer Liability Law of California, which provided for certain compensation, medical and hospital treatment for industrial injuries, was effective September 1, 1911. In the same year, a constitutional amendment authorized the legislature to enact workmen's compensation laws. These laws, which were made effective January 1, 1914, have been amended many times. In 1917 the act was substantially changed, and the term "injury" substituted for the term "accident." Today "injury" is defined as including any injury or disease arising out of the employment, including injuries to artificial members.

At present, the Compensation Act is not to be found in any one code, but most of it can be found in the Labor Code, the Health and Safety Code, or the Insurance Code. Careful study of the codes and of the court decisions which have been made over a period of years on the various phases of the law is necessary to understand the jurisdiction of the Industrial Accident Commission.

The Labor Code requires that every injury, unless the disability resulting from such injury does not last through the day or does not require medical care other than ordinary first-aid treatment, shall be reported to the Commission. In case of death, the employer must submit a report forthwith by telephone or telegraph.

The term "occupational disease" is not used in the law, and is unnecessary because a disease arising out of the occupation is classed as an injury and, therefore, is compensable in the same way that other injuries are compensable. The requirements for reporting occupational diseases are the same as for reporting any other injury. In 1941, there were 450,793 industrial injuries reported to the Commission, and of these, 113,648 were classed as tabulatable injuries, that is, deaths, permanent disabilities, and temporary disabilities

lasting longer than one day. Of the 113,648 injuries, 7,100 were due to "hot, poisonous, and corrosive substances and flames," the classification under which all of the occupational disease cases are included. During 1941, there were 635 industrial deaths, and of these, only 15 were charged to the same heading, "hot, poisonous, and corrosive substances and flames." How many of these could have been classified as occupational diseases, we do not know.

On August 11, 1942, the Commission adopted a resolution providing for the use of standard forms for the reporting of industrial accidents, injuries, or occupational diseases, providing that such injury either disables through the day of injury, or requires medical attention. These forms are for the use of employers, insurance carriers, and physicians, and surgeons.

Many physicians specialize in industrial surgery, but it is only recently that any great number of physicians have given thought to occupational diseases as a group. If the effects on the human body of many of the thousands of chemical compounds that are being put on the market were known to the medical fraternity, provision could be made for protection against the ill effects, if any, of these compounds.

There must be complete coöperation between the chemist, pathologist, pharmacologist, roentgenologist, internist, and the engineer. When the physician states that certain conditions existing in industry are hazardous to health, it is probably within the province of the engineer to provide for the removal or the amelioration of such hazards. Without the coöperation of the entire group, the desired result cannot be achieved.

State Building, Civic Center.

PROBLEMS IN INDUSTRIAL SURGERY*

NELSON J. HOWARD, M. D.

San Francisco

THE surgeon who undertakes to treat an injured workman, covered by industrial accident insurance, immediately involves himself in a series of relationships going far beyond the usual patient-physician relationship of private practice.

The physician becomes at once, judge, recording secretary, bursar, and witness. He may, if so inclined, become a venal biased judge, slovenly recorder, or suborned witness. If he so demeans himself, the true patient-physician relationship is destroyed.

Given the same attitude and interest as shown our private patients, the industrial patient maintains the desired relationship. Under such circumstances, less than one-half of one per cent of in-

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Author is Chief, Bureau of Industrial Accident Prevention, California State Industrial Accident Commission, San Francisco, California.

* Presented at the Institutes on Wartime Industrial Health in San Francisco, Crockett, and Oakland, on August 18, 19, and 21, respectively.

From the department of surgery, Stanford University School of Medicine, San Francisco.